

WHAT IS CLAIMED IS:

1. A calculus treatment apparatus comprising:

a first probe which transmits first mechanical energy to a distal end side thereof and pulverizes a calculus by the first mechanical energy;

a first mechanical energy generating device which is arranged on a proximal end side of the first probe and generates the first mechanical energy;

a second probe which transmits to a distal end side thereof, second mechanical energy different from the first mechanical energy and pulverizes the calculus by the second mechanical energy; and

a second mechanical energy generating device which is arranged on a proximal end side of the second probe and generates the second mechanical energy different from the first mechanical energy,

wherein a probe arrangement structure is provided in which the first probe and the second probe are arranged substantially coaxially or concentrically.

2. A calculus treatment apparatus according to Claim 1, wherein in the probe arrangement structure, the second probe is inserted in a hollow portion formed in the first probe.

3. A calculus treatment apparatus according to Claim 1, wherein the arrangement structure is formed by dividing a cylindrical-shaped or circular-tube-shaped structure in the longitudinal direction so that the first probe and the second probe have substantially the same central axis.

4. A calculus treatment apparatus according to Claim 1, wherein in the probe arrangement structure, the second probe is detachably inserted in a hollow portion formed in the first probe.

5. A calculus treatment apparatus according to Claim 1, wherein the first mechanical energy generating device generates the mechanical energy by magnetic force.

6. A calculus treatment apparatus according to Claim 1, wherein the first mechanical energy generating device generates the mechanical energy by ultrasonic vibration.

7. A calculus treatment apparatus according to Claim 1, wherein the first mechanical energy generating device generates the mechanical energy by magnetic force and the second mechanical energy generating device generates the mechanical energy by ultrasonic vibration.

8. A calculus treatment apparatus according to Claim 1, wherein a distal end of the second probe is positioned within or in a part of a moving range of a distal end of the first probe by the first mechanical energy.

9. A calculus treatment apparatus according to Claim 1, wherein the probe arrangement structure has a hollow passage for inserting a pulverized calculus.

10. A calculus treatment apparatus according to Claim 2, wherein the second probe has a hollow passage for inserting a pulverized calculus.

11. A calculus treatment apparatus according to Claim 7, wherein the distal ends of the first and second probes are arranged so that the entire or at least a part of a stroke width of the ultrasonic vibration of the distal end of the second probe is overlapped to a moving stroke width upon pulverization using the distal end of the first probe.

12. A calculus treatment apparatus according to Claim 1, wherein the first probe is a lithotripsy probe which is driven by magnetic force.

13. A calculus treatment apparatus according to Claim

1, wherein the first probe is an ultrasonic probe which is driven by ultrasonic waves.

14. A calculus treatment apparatus according to Claim 3, wherein the first probe is jointed to the second probe, thus forming a cylindrical member for inserting the pulverized calculus.

15. A calculus treatment apparatus according to Claim 2, wherein the first probe is an ultrasonic probe which is driven by ultrasonic waves.

16. A calculus treatment apparatus according to Claim 2, wherein the first probe is a lithotripsy probe which is driven by magnetic force.

17. A calculus treatment apparatus according to Claim 4, wherein a suction device can be connected to a proximal end of the hollow portion formed in the first probe.

18. A calculus treatment apparatus according to Claim 1, wherein the first mechanical energy generating device and the second mechanical energy generating device are arranged adjacently in the longitudinal direction of the first probe and second probe.

19. A calculus treatment apparatus according to Claim 1, wherein the first mechanical energy generating device has a hollow portion for inserting the second probe.

20. A calculus treatment apparatus according to Claim 4, wherein a projection portion projected in a side direction of the first probe is arranged at the distal end of the first probe.

21. A calculus treatment system comprising:

a first probe which transmits first mechanical energy to a distal end side thereof and pulverizes a calculus by the first mechanical energy;

a first mechanical energy generating device which is arranged on a proximal end side of the first probe and generates the first mechanical energy;

a second probe which transmits to a distal end side thereof, second mechanical energy different from the first mechanical energy and pulverizes the calculus by the second mechanical energy;

a second mechanical energy generating device which is arranged on a proximal end side of the second probe and generates the second mechanical energy different from the first mechanical energy; and

a driving device which supplies electric driving energy to generate the first and second mechanical energy in the first and second mechanical energy generating devices,

wherein a probe arrangement structure is provided in which the first probe and the second probe are arranged substantially coaxially or concentrically.

22. A calculus treatment system according to Claim 21, wherein in the probe arrangement structure, the second probe is inserted in a hollow portion formed in the first probe.

23. A calculus treatment system according to Claim 21, wherein the arrangement structure is formed by dividing a cylindrical-shaped or circular-tube-shaped structure in the longitudinal direction so that the first probe and the second probe have substantially the same central axis.

24. A calculus treatment system according to Claim 21, wherein in the probe arrangement structure, the second probe is detachably inserted in a hollow portion formed in the first probe.

25. A calculus treatment system according to Claim 21, wherein the first mechanical energy generating device generates the mechanical energy by magnetic force.

26. A calculus treatment system according to Claim 21, wherein the first mechanical energy generating device generates the mechanical energy by ultrasonic vibration.

27. A calculus treatment system according to Claim 21, wherein the probe arrangement structure has a hollow passage for inserting a pulverized calculus and a suction device can be connected to the hollow passage.